STATUS OF THE PYGMY RABBIT

(*Brachylagus idahoensis*)

IN IDAHO

by

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Abstract. In July and August 2002, I conducted a "windshield survey" of pygmy rabbit habitat in southern Idaho for the Bureau of Land Management (BLM). I traveled approximately 4,100 miles through eight BLM Field Office areas in search of currently or recently active pygmy rabbit burrow systems, using methods that I previously used successfully in Lemhi and Custer Counties (Roberts, 2001). I assumed for the purpose of this study that I would be able to find rabbits anywhere that there were mature stands of the three subspecies of big sagebrush (*Artemisia tridentata*). I was only able to find nine new sites that were currently active and two sites that had been recently used. Six of these sites were within 15 miles of the state lines between Idaho and Montana, Utah, Wyoming, and Nevada, providing insight on connectivity between the states.

The major reason for finding so few animals was the high degree of fragmentation over most of the pygmy rabbit's historic range. Much of the Snake River Plains has been converted to dry land or irrigated farming that has eliminated rabbits from this area. Other large blocks have been reduced by recent large wild fires. Agriculture and range fires together have fragmented what was once thought to be one continuous population into three sub-populations: (1) lands situated north of the Snake River, (2) Owyhee County, and (3) lands south of the Snake River. Habitat in the Salmon and Challis FO areas (sub-population 1) has remained relatively intact because there have been few large range fires and only small acreages of farming. On the other extreme, the Burley FO area (sub-population 3) is heavily farmed and has had numerous large range fires. Pygmy rabbits found here should be considered isolated and fragmented. Their future is in doubt. Owyhee County (sub-population 2) has been severely burned at lower elevations but higher elevations appear to be relatively intact.

I concluded that there is little that can be done to mitigate past loss of habitat due to farming, as it is a way of life in Idaho. However, there are ways to mitigate further habitat loss on private lands through conservation easements. Fire is currently the major contributing factor to the loss of pygmy rabbit habitat in Idaho. Its fate rests largely on BLM fire suppression efforts. If it is to survive, large blocks of mature big sagebrush need to be preserved.

INTRODUCTION

The Bureau of Land Management (BLM} lists the pygmy rabbit (*Brachylagus idahoensis*) as Sensitive Species. It is currently a Species of Special Concern (Category C - Undetermined Status Species) on the Idaho State Sensitive Species List (Idaho Conservation Data Center 1994), which means the species may be rare in the state, but for which there is little information on their populations, distribution and/or habitat requirements. To reflect this uncertainty, the Idaho Fish and Game Commission recently changed its status in Idaho from a hunted species to a protected species. This study is designed to increase the information on distribution of the pygmy rabbit throughout the state and clarify its status.

During the summers of 1997 and 1998, I mapped the distribution of pygmy rabbits in Lemhi and Custer Counties, Idaho (Roberts 2001) and found them occurring scattered throughout sagebrush habitat of both counties. I also found significantly higher number of rabbits within 10 miles of Leadore, Idaho. My survey method was largely "windshield biology" where I observed active rabbit burrows as I drove slowly through appropriate habitat. The method proved very successful, as I was able to locate over 100 active burrow sites within my 583,600-acre study area. Based on this success, I proposed to the BLM that I try the methodology over the remainder of the state where pygmy rabbits were thought to exist, namely the Snake River Plains and the adjoining Bear River drainage.

Distribution information on pygmy rabbits in Idaho is very sketchy. In addition to my survey, Idaho State University has conducted a series of studies on the Idaho National Engineering and Environmental Laboratory (INEEL) site (Wilde 1978, Wilde and Keller 1978, Gabler 1997, Tullis 1995, Simons 2001). Green and Flinders (1980a and 1980b) reported them on the U.S. Sheep Experiment Station at Dubois. The Idaho Conservation Data Center (2001) has 146 records of the pygmy rabbit from Idaho that have been collected since 1890.

Closely adjacent to Idaho, Rauscher (1997) reports pygmy rabbits are found in neighboring Beaverhead, Deerlodge and Madison Counties in southwestern Montana. There are reports that they are found in the five neighboring counties (Fremont, Lincoln, Sublette, Sweetwater and Uinta) in southwestern Wyoming (Campbell et al. 1982). There is no specific information as to how Idaho populations connect with the Utah, Nevada and Oregon, where they are known to exist.

Purposes of this study are to:

- extensively survey BLM administered lands currently thought to be occupied by pygmy rabbits in Idaho
- determine the outer limits of their range in Idaho, including connectivity with their range in adjoining states
- map areas where they have been extirpated by recent wild fires and agriculture
- map concentration areas